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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/686,123

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Alex M. Gernert

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06/06/2006

SIERRA PATENT GROUP, LTD.

1657 Hwy 395, Suite 202

Minden, NV 89423

EXAMINER

NEURAUTER, GEORGE C

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/686,123	GERNERT ET AL.	
	Examiner	Art Unit	
	George C. Neurauter, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 52,55,56,59,60,63,64 and 67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 52,55,56,59,60,63,64 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 52, 55-56, 59-60, 63-64, and 67 are currently presented and have been examined.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 April 2006 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 52, 55-56, 59-60, 63-64, and 67 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 52, 55-56, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Request for Comments 2131:

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Dynamic Host Configuration Protocol" ("RFC 2131") in view of US Patent 5 692 197 to Narad et al, in further view of US Patent 4 775 996 to Emerson, and also in further view of US Patent 6 212 175 to Harsch.

Regarding claim 52, "RFC 2131" discloses a method for preventing a computer from being disconnected from a network comprising:

determining a termination time of a network connection for said computer; (page 29, section "4.3.1 DHCPDISCOVER message", specifically "Once the network address and lease have been determined, the server constructs a DHCP OFFER message with the offered configuration parameters...The server MUST return to the client:...The expiration time for the client's lease...")

setting a timer for a time prior to said termination time responsive to said determination of said termination time; (pages 40 and 41, section 4.4.5 "Reacquisition and expiration", specifically "The client maintains two times, T1 and T2, that specify the times at which the client tries to extend its lease on its network address... T1 MUST be earlier than T2, which, in turn, MUST be earlier than the time at which the client's lease will expire." and "The client MAY choose to renew or extend its lease prior to T1...")

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and transmitting a message from said mobile computer to a host computer in said network wherein said message is a request for an extension of a lease of an Internet Protocol Address for said mobile computer. (page 3, specifically "In 'dynamic allocation', DHCP assigns an IP address to a client for a limited period of time (or until the client explicitly relinquishes the address)..."); page 40, section 4.4.5 "Reacquisition and expiration", specifically "At time T1 the client moves to RENEWING state and sends (via unicast) a DHCPREQUEST message to the server to extend its lease...When the client receives a DHCPACK from the server...[t]he client has successfully reacquired its network address, returns to BOUND state and may continue network processing.")

"RFC 2131" does not disclose wherein the computer is a mobile computer. "RFC 2131" also does not disclose setting said mobile computer into a sleep mode responsive to setting of said timer and setting said mobile computer to an active mode responsive to said timer expiring and transmitting the message responsive to said mobile computer being set to said active mode.

Narad discloses setting said mobile computer into a sleep mode ("sleep state"; column 3, lines 55-56) responsive to setting of a timer (column 2, lines 10-15), setting said mobile

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computer to an active mode ("active state"; column 3, lines 58-59) responsive to said timer expiring (column 2, lines 15-18), and transmitting a message from said mobile computer to a host computer in said network responsive to said mobile computer being set to said active mode. (column 2, lines 54-67, specifically 65-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Narad discloses that setting a mobile computer into a sleep mode and sending a message after becoming active after a timer expires enables the mobile computer to appear continuously in a active mode while actually being in a sleep mode (column 3, lines 1-6) by enabling the network connection means to be active while the processing means of the mobile computer is in a sleep mode, enabling increased power conservation without affecting the performance of the network (column 3, lines 6-20). In view of these specific advantages and that the references are directed to maintaining connections between a computer and its host, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary

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skill to reasonably expect a successful combination of the teachings.

"RFC 2131" and Narad do not disclose wherein the method further comprises determining whether said mobile computer is out of transmission range of said host computer; displaying an out of range message on a display screen of said mobile computer responsive to a determination that said mobile computer is out of said transmission range; setting a re-transmit timer responsive to a determination of said mobile computer being out of said transmission range; and re-transmitting said message responsive to an expiration of said re-transmit timer, however, Emerson does disclose determining whether a mobile computer is out of transmission range of a host computer and displaying an out of range message on a display screen of said mobile computer responsive to a determination that said mobile computer is out of said transmission range (column 1, lines 11-38, specifically lines 29-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Emerson discloses that alerting a user that the mobile computer is out of range is necessary to correct operator misuse of the mobile device (column 1, lines 11-38, specifically lines 29-38). In view of these specific advantages

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and that the references are directed to maintaining connections between a computer and its host, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

"RFC 2131", Narad, and Emerson do not disclose setting a re-transmit timer responsive to a determination of said mobile computer being out of said transmission range and re-transmitting said message responsive to an expiration of said re-transmit timer, however, Harsch does disclose these limitations (column 11, line 58-column 12, line 2, specifically column 11, line 66-column 12, line 2; column 14, lines 35-48, specifically lines 40-43). Harsch also further discloses determining whether said mobile computer is out of transmission range of said host computer (column 14, lines 37-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Harsch discloses that setting a re-transmit timer to retransmit a message extends the amount of time the mobile computer can be out of range of the host computer (column 11, lines 61-66). In view of these specific

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advantages and that the references are directed to maintaining connections between a computer and its host, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

Claim 56 is also rejected since claim 56 recites a mobile computer terminal that contains substantially the same limitations as recited in claim 52.

Regarding claim 55, "RFC 2131", Narad, Emerson, and Harsch disclose the method of claim 52.

"RFC 2131" discloses wherein said message is a lease renewal message. (page 40, section 4.4.5 "Reacquisition and expiration", specifically "At time T1 the client moves to RENEWING state and sends (via unicast) a DHCPREQUEST message to the server to extend its lease...When the client receives a DHCPACK from the server...[t]he client has successfully reacquired its network address, returns to BOUND state and may continue network processing.")

Claim 59 is also rejected since claim 59 recites a mobile computer terminal that contains substantially the same limitations as recited in claim 55.

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Claims 60, 63-64, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over "RFC 2131", Narad, Applicant's admitted prior art, namely US Patent 5 029 183 to Tymes, and in further view of Emerson, and also in further view of Harsch.

Regarding claim 60, "RFC 2131" discloses a computer terminal comprising:

a transceiver unit for transmitting and receiving messages; a processing unit, and instructions for directing said processing unit, and a media readable by said processing unit that stores said instructions ("client" with "network interface" as shown throughout the reference), wherein the instructions direct the processing unit to:

determine an expiration time for a connection time between said computer terminal and a host computer system, (page 29, section "4.3.1 DHCPDISCOVER message", specifically "Once the network address and lease have been determined, the server constructs a DHCPOFFER message with the offered configuration parameters...The server MUST return to the client:...The expiration time for the client's lease...")

set a timer to expire prior to said expiration time, (pages 40 and 41, section 4.4.5 "Reacquisition and expiration", specifically "The client maintains two times, T1 and T2, that

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specify the times at which the client tries to extend its lease on its network address... T1 MUST be earlier than T2, which, in turn, MUST be earlier than the time at which the client's lease will expire." and "The client MAY choose to renew or extend its lease prior to T1..." and

transmit a connection message to said host computer system prior to said expiration time wherein said connection message requests an extension of a lease of an Internet Protocol Address for said mobile computer terminal. (page 3, specifically "In 'dynamic allocation', DHCP assigns an IP address to a client for a limited period of time (or until the client explicitly relinquishes the address)..."); page 40, section 4.4.5 "Reacquisition and expiration", specifically "At time T1 the client moves to RENEWING state and sends (via unicast) a DHCPREQUEST message to the server to extend its lease...When the client receives a DHCPACK from the server...[t]he client has successfully reacquired its network address, returns to BOUND state and may continue network processing.")

"RFC 2131" does not disclose wherein the computer terminal is a mobile computer terminal. "RFC 2131" also does not disclose setting said mobile computer terminal to a sleep mode responsive to setting said timer, set said mobile computer terminal to an active mode responsive to an expiration of said timer, transmit

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a connection message to said host computer system prior to said expiration time responsive to said computer terminal being set to an active state.

Narad discloses setting said mobile computer into a sleep mode ("sleep state"; column 3, lines 55-56) responsive to setting of a timer (column 2, lines 10-15), setting said mobile computer to an active mode ("active state"; column 3, lines 58-59) responsive to said timer expiring (column 2, lines 15-18), and transmitting a message from said mobile computer to a host computer in said network responsive to said mobile computer being set to said active mode. (column 2, lines 54-67, specifically 65-67).

These motivations regarding the obviousness of claim 52 also apply to claim 60 regarding "RFC 2131" and Narad.

"RFC 2131" and Narad do not disclose wherein the mobile computer terminal comprises a hand-held image scanner and instructions for directing said processing unit to read an image from said hand-held image scanner, transform data corresponding to said image, generate a data message including said data, said data message having a format and ordering expected by a host computer system, transmit said data message to said host computer system, however, the Applicant's admitted prior art discloses these limitations in the context of mobile computers

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(column 2, line 55-column 3, line 57; column 6, lines 28-56; column 11, line 25-column 12, line 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Applicant's admitted prior art with the disclosures of Narad since the Applicant admits the mobile computer terminal as known prior art and therefore it would have been within the knowledge of one of ordinary skill in the art and would have been motivated to combine the teachings of these references based on this knowledge by those of ordinary skill in the art as admitted by the Applicant.

"RFC 2131" and Narad do not disclose wherein the method further comprises determining whether said mobile computer is out of transmission range of said host computer; displaying an out of range message on a display screen of said mobile computer responsive to a determination that said mobile computer is out of said transmission range; setting a re-transmit timer responsive to a determination of said mobile computer being out of said transmission range; and re-transmitting said message responsive to an expiration of said re-transmit timer, however, Emerson does disclose determining whether a mobile computer is out of transmission range of a host computer and displaying an out of range message on a display screen of said mobile computer

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responsive to a determination that said mobile computer is out of said transmission range (column 1, lines 11-38, specifically lines 29-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Emerson discloses that alerting a user that the mobile computer is out of range is necessary to correct operator misuse of the mobile device (column 1, lines 11-38, specifically lines 29-38). In view of these specific advantages and that the references are directed to maintaining connections between a computer and its host, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

"RFC 2131", Narad, and Emerson do not disclose setting a re-transmit timer responsive to a determination of said mobile computer being out of said transmission range and re-transmitting said message responsive to an expiration of said re-transmit timer, however, Harsch does disclose these limitations (column 11, line 58-column 12, line 2, specifically column 11, line 66-column 12, line 2; column 14, lines 35-48,

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specifically lines 40-43). Harsch also further discloses determining whether said mobile computer is out of transmission range of said host computer (column 14, lines 37-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Harsch discloses that setting a re-transmit timer to retransmit a message extends the amount of time the mobile computer can be out of range of the host computer (column 11, lines 61-66). In view of these specific advantages and that the references are directed to maintaining connections between a computer and its host, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

Claim 64 is rejected since claim 64 recites substantially the same limitations as recited in claim 60.

Claims 63 and 67 are also rejected since these claims recite a mobile computer terminal and method that contain substantially the same limitations as recited in claim 55.

Conclusion

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It is noted that the column, line, and/or page number citations used in the prior art references as applied by the Examiner to the claimed invention are for the convenience of the Applicant to represent the relevant teachings of the prior art. The prior art references may contain further teachings and/or suggestions that may further distinguish the citations applied to the claims, therefore, the Applicant should consider the entirety of these prior art references during the process of responding to this Office Action. It is further noted that any alternative and nonpreferred embodiments as taught and/or suggested within the prior art references also constitute prior art and the prior art references may be relied upon for all the teachings would have reasonably suggested to one of ordinary skill in the art. See MPEP 2123.

The prior art listed in the PTO-892 form included with this Office Action disclose methods, systems, and apparatus similar to those claimed and recited in the specification. The Examiner has cited these references to evidence the level and/or knowledge of one of ordinary skill in the art at the time the invention was made, to provide support for universal facts and the technical reasoning for the rejections made in this Office Action including the Examiner's broadest reasonable interpretation of the claims as required by MPEP 2111 and to

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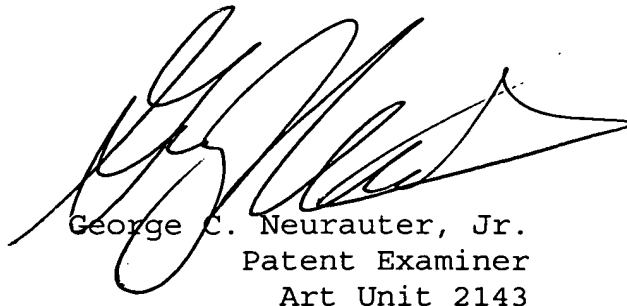
evidence the plain meaning of any terms not defined in the specification that are interpreted by the Examiner in accordance with MPEP 2111.01. The Applicant should consider these cited references when preparing a response to this Office Action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



George C. Neurauter, Jr.
Patent Examiner
Art Unit 2143